

# Lean Accounting: A Decision-Making Tool

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*Lean accounting is a management decision-making tool available to companies involving streamlining a company's competitive internal management strategy to minimize waste, such as excess inventory, to maximize profits. This exploration of lean accounting processes looks at how companies can maximize continuous improvement using reporting and accounting methods. Barriers to lean accounting implementation are identified together with means for their resolution. The basic understanding of lean accounting is it targets waste and non-value-adding activities especially those that do not benefit the internal or external stakeholder in the manufacturing or service setting. Lean accounting offers specific styled reports, performance measures.*

*Keywords: lean accounting, decision tools, performance management, target costing, value stream analysis*

## INTRODUCTION

Lean accounting is an available methodology to bring out true value of a business to improve, grow, and increase profitability for a company efficiently and effectively (Maskell, Baggaley & Grasso, 2012; 2016). The basic understanding of lean accounting is it targets waste and non-value adding activities. Waste and non-value-adding activities are processes that do not benefit the company's mission or goals (Womack & Jones, 2003; Luo & Brozovsky, 2013; Herzog & Tonchia, 2014). They also are seen as activities that do not benefit the internal or external stakeholders. Lean accounting assists in highlighting areas both overall and in the departments of a company that require improvement, restructuring, or even elimination. Lean accounting encourages companies to use their freed-up time to focus on areas of growth, innovation, and implementing systems to continue monitoring progress. This approach can be applied to most, if not all, companies in the manufacturing or service setting. The approach offers specific styled reports, performance measures, different styled meetings, a look internally of the company's missions and goals, a look externally in the mind of the consumer and market, value stream accounting, and other visuals and information that display different aspects of the company. Overall lean accounting is more than just 'trimming the fat,' but is also a way to accomplish the company's mission (Maskell et al., 2012; Maskell et al., 2016; Wang, 2021).

The following presents a general view of lean accounting consisting of the means to utilize its terminology and logic. Some processes add value to a company and those that do not. Lean accounting has become a way to reduce profit-draining actions, leading to improvements and new projects with growth objectives. Lean accounting reports provide an increased understanding, observance, and continued

monitoring of the impact of decisions. Newly carved out time granted by practicing lean accounting provides the complete edge necessary to thrive in an ever-evolving market (Grasso & Fearon, 2015).

Although this is an exciting concept, there is the risk that lean accounting may not offer improvement in achieving company objectives about associated financial and time costs. The general cons include lack of a standardized method of shifting to lean accounting methodology. The difficulty of a company's cultural changes demanded by lean accounting can introduce resistance from individuals and departments. There are barriers to implementing lean accounting that may prevent the company from finding the opportunity to utilize the benefits that leading to the ineffectiveness of lean accounting (Carnes & Hedin, 2005; Grasso, 2006; Brosnahan, 2008; Nordin, Deros & Wahab, 2010).

Lean accounting's way to perform management accounting finds several familiar methods to account for cost and provide better information to decision-makers. Most of these methods include activity-based costing. Researching the pros and cons finds two observations. First, lean accounting is part of a continuous evolution of methods that can improve management accounting by delving into the cause-and-effect relationship between the company's actions and the market. And second, the change in the role of the accounting profession within industries occurs more on the 'shop floor' to find areas of improvement, train employees to think lean, and observe non-financial data (Arora & Soral, 2017; Lima, Neto, Santos & Caiado, 2023).

## **BACKGROUND**

The nature of business includes competition, rapid changes to the economic and technological environment, and external and internal challenges that keep a company from accomplishing its mission, increasing growth in their market sector, or both. Within the last decade lean accounting became one of the revelations to overcome the age-old hurdle known as the business setting. Lean accounting asks, what can we do that is right and we are doing it right (Maskell & Baggaley, 2004; Shah & Ward, 2007).

The concept of a company becoming lean, efficient, new, and improved started years ago. Kaplan and Johnson (1987) report that current business and accounting practices began stagnating in the 1920s. They argue that a gap exists between the information provided by accounting practices, and data necessary for a company to remain current in a changing market. A lean company is seen as a detriment to managers facing increased demands for change by shareholders and the market (Grasso, 2006). Kaplan and Johnson (1987) trace the positive contributions that management accounting made to the growth of American business to before 1925 and its debilitating influence on manufacturing businesses following the Second World War. They claim the accounting methods of cost allocation, as well as the information available to managers, helped to pave the way for growing manufacturing business, but then quickly became outdated and a damaging obstruction due to the use of traditional cost accounting information as a basis for production and marketing decisions in manufacturing organizations. The practice did not provide sufficient information as overhead costs are allocated evenly across the operation and other traditional accounting misleading indicators. In other cases, the data restricts the view of management searching for answers to challenges from competition, technological occurrences, and other disruptive market changes. Most notably, Kaplan and Johnson (1987) present an accounting theory regarding answers to traditional accounting problems. Their theory coined activity-based costing (ABC Costing) attempts to reverse the negative or misleading influence of traditional based costing on executive and marketing decisions (Johnson, 2002). Kaplan and Burns (1987) were the first to clearly define and explain activity-based costing.

Using Kaplan and Johnson (1987) propositions, major developments in cost allocations and other accounting practices have emerged. Activity-based cost management (ABM) became a revolutionary idea for internal management to associate costs to activities, processes, products, certain services, and customers (Bahnub, 2010; Frick & Metternich, 2022).

Cooper and Kaplan (1988) warn traditional accounting product information leads managers to bad strategy. Linking the concept of activity-based costing to activity-based management, where the data is more reliable leads to better managerial decision-making. The concept was revolutionary in linking costs

to correct activities, revealing which products and services cost the company more than its revenue (Zawawi & Hoque, 2010; de Moura & Bonadio, 2021).

During the activity-based costing revolution, companies implementing the method report manufacturing engineers agreed that tracing overhead costs to specific activities was a better way to observe the consumption of resources. Assigning costs in this manner was a way to highlight inefficiencies. However, with most methods, there was a flaw in activity-based accounting. That is, the ABC methodology did not include or address the customer. The customer is the primary purpose of implementing the cost methodologies (Shah & Ward, 2003; Grasso, Kristensen & Nielsen, 2022). The entity should pay attention to the customer as they influence and change the market (Johnson, 2002).

Johnson (2002) discusses management accounting, but from a customer perspective to capture the minds of management practices to reintroduce the customer as a building block or even foundation for decision making and information gathering. In a sense, Johnson's work is an early draft of lean thinking. The concept of the customer as a part of the formula for creating the newer leaner business and accounting practice to maximize the resources of the company is found in the balanced scorecard (BSC) (Kaplan & Norton, 1993; 2001). The BSC idea aimed to measure performance beyond the more classic measures such as return-on-investment and sales growth. The BSC provides a framework of the company's strategic missions and objectives. It utilizes four different perspectives to measure.

The key feature of the BSC is the four perspectives, as they are a way for management to focus on the key areas that affect an entity and have a balanced set of financial and non-financial measures. The four perspectives of the BSC are that of finance, customer, internal processes, and knowledge and growth. The financial sector of the BSC brings attention to how the company relates to shareholders. Traditionally, companies use measures to determine how profitable actions are to provide a higher return for the stockholders. The second BSC perspective BSC discusses how the company associates with their customers. As the customers are a key company stakeholder, it is important to ensure that their needs are addressed when determining a shift in company action. The third BSC sector is internal processes, which asks what the company should accomplish. This provides a more meaningful look for the company as it draws attention to its more successful goods, practices, and services and how to capitalize on them. The last BSC sector is knowledge and growth, which asks how the company can create value. This is key as it addresses areas in the company that can be improved or costs that can be cut. To grow, the company must determine what the company can do better. All BSC sectors are connected and highlight the company's mission and strategy on what the entity hopes to achieve (Kaplan & Norton, 1993; 2001; Chongruksut, 2009).

This highlighted the importance of strategy, mission, and the customer when implementing and reviewing strategies. After completing a BSC, critical measurements for each of the four areas of the BSC are identified to gauge how well the company is performing in the four areas. The measures also determine if new tactics and strategies affect the four BSC perspectives (Kaplan & Norton, 1993; 2001; Chongruksut, 2009). The BSC is a means for companies to evolve by identifying areas where management should consider change and how that change should be implemented.

During the past two decades, lean accounting became a management decision process with the incorporation of efficiency, cost reduction, adaptability, and strategy value creation. Lean accounting prides itself as being more than a cost-reduction tool. It is also a way for a company to be competitive in a rapidly changing market. It is a way to look both internally at the company's strengths and weaknesses and externally at the customer's perspective and what creates value. Lean accounting is derived from past methodologies and is more of a 'final product' in a more accurate way to improve and continually improve businesses (Pozesky & Stoner, 2017).

Over the years, the role of the organization's accountant has changed from gathering data and information to formulating theories that concern the human psyche (Kaplan, 1984; Ahrens & Chapman, 2007). This is seen when determining what creates value for clients when considering the customer's perspective or looking at non-financial data such as client feedback. There is also the traditional view of cost and moving beyond relating cost to a department but taking it a step further and asking how this extra cost creates value, if at all, when it incurs a cost (Waweru, 2010; Lima, et al., 2023).

The following sections present the advantages and disadvantages of lean accounting together with a discussion of the use of management accounting and how to provide the most useful data with the most relevant process.

## LEAN ACCOUNTING

Lean accounting describes the management practice used by an organization that espouses lean thinking, focusing on the value delivered to the customer and on the elimination of waste (see Figure 1) via workflow and better inventory management (Maskell, 2000; Baggaley & Maskell, 2003; Kennedy & Brewer, 2005; Luo & Brozovsky, 2013). One of the fundamental differences between lean accounting and traditional accounting is that a lean organization is organized by value streams rather than functions (Haskin, 2010). Lean accounting attempts to identify information that is most relevant in decision-making for companies wishing to become effective with their mission and objectives. Lean accounting is an attempt to achieve the mission and object of the company in the most efficient method possible by utilizing the least resources to deliver true value to the end user. Lean accounting introduces concepts and tools to aid in becoming ‘lean.’ It is important to note that lean accounting does not just function as a cost reducer but makes efficient use of both capital and time. It is a plan that ‘cycles’ and encourages continued observation and improvement. Lean accounting offers optimal reports to identify and improve the value of processes and products, enhance decision making and provide new accounting tools to increase operational oversight (Maskell & Baggaley, 2004).

**FIGURE 1  
TYPES OF LEAN MANAGEMENT WASTE**

Transportation	– the movement of materials
Inventory	– excessive inventory
Motion	– the movement of people
Waiting	– waiting on material, machines, or people
Overprocessing	– processing more than required (such as data overload in reports)
Overproduction	– producing more than what is needed
Defects	– output that does not meet the customer’s requirements
Underutilized human potential	– not empowering people to their full potential

Source: Authors

### Operational Processes

Lean accounting leverages reports in a meaningful way. Before lean accounting tools, management relied on accounting data from the previous month for decision-making analysis. In the ever-changing business environment, opportunities and threats happen quickly if not daily. Kennedy and Brewer (2005) report entities observe data up to five days after the month-end close. Lean accounting methodology considers data useless if it is not help managers make real-time decisions. on current events (Haskin, 2010). Due to the old methodology focusing on days-old reports management can produce excess or insufficient inventory. Thus, reviewing and acting on stale data encourages management to act ‘anti-lean.’

Lean accounting touches on the optimization of reports that provide the data for decision-making within an organization both on what is included in the data and the presentation of the accounts and numbers. in the past, internal report data focused on financial numbers and jargon familiar to those with an accounting education or financial background in accounting, finance, or other related business areas. These reports are seen as useful and exclusive to those with an understanding and background. It is daunting to imagine that individuals who understand the reports are still using them as the basis for making quick decisions, Leaving a gap and a lingering question of why use such reports? Lean accounting attempts to produce income statements and other smaller, simpler reports on progress that are written in a simpler style. The overall goal of these reports is to have readily available information to answer any question about the company’s

decision rather than spending time and resources figuring out what the information means (Haskin, 2010; Thangarajoo & Smith, 2015).

*Traditional Versus Lean Accounting*

To better understand the solution, there is a need to further understand the current problem of traditional reporting versus lean accounting reports. There is a gap between those who construct and understand the current financial reports, and those who do not understand the structure nor the meaning of the report accounts. The underlying problem with becoming lean is there must be a unification and common structure nor the meaning of the report accounts. The underlying problem with becoming lean is that there must be a unification and common understanding when a company decides to change. Decisions made by a company are dependent on data that is understood by the entire staff. This includes lower managers who do not have, nor are needed to have, that understanding to perform their job. However, when faced with downturns in sales and other negative indicators, a real-time decision and cooperation within the company are necessary to resolve the problem as efficiently as possible. For that to happen, company reports must have clarity and be broken into subsections for the information. Straight forward and understood to identify problems before they occur (Haskin, 2010; Haskin & Haskin, 2014).

**FIGURE 2  
COMPARISON OF LEAN AND TRADITIONAL ACCOUNTING**

<b>LEAN ACCOUNTING</b>	<b>TRADITIONAL COST ACCOUNTING</b>
Lean accounting provides quick, simple, and timely information for decision making	Traditional accounting systems are complex processes that require non-value-adding work to understand.
Supports a value stream approach that associates the entire process to product costing	Supports a departmental view of production
Enables value-based pricing	Enables cost-based pricing
Supports weekly as well as other period value stream income statements	Supports annual income statements
Maximizes value stream flow through	Uses standard costs and variances
Provides measures that are timely and visually displayed	Produces complex reports designed for senior management
Supports operation and accounting management	Supports command and control management
Decisions made using the revenues, costs, and profitability of the value stream	Decisions made using standard costs of products and services
Leads to better pricing and decisions leading to higher profitability and cash flow	Provides misleading information about decision that leads to poor pricing, inappropriate orders, and making unsupported improvements

Sources: Arora & Soral, 2017 Grasso, 2021

A comparison between lean and traditional cost accounting is displayed in Figure 2. Traditional accounting is based on producing products to achieve economies of scale. It also complies with regulations by accounting and auditing generally accepted accounting guidance (Grasso, 2021). In contrast, lean accounting focuses on producing the company’s products and adheres to a different cost assumption and management strategy as shown in Figure 3.

**FIGURE 3  
COMPARISON OF LEAN AND TRADITIONAL PRODUCT COST AND  
STRATEGY ASSUMPTIONS**

<b>LEAN PRODUCT COST ASSUMPTIONS</b>	<b>TRADITIONAL PRODUCT COST ASSUMPTIONS</b>
Production volume decreases costs	Production volume greater than customer demand is waste
Short lead times increase profitability	Short lead times increase cost
Higher quality reduces costs	Higher quality leads to higher costs
<b>LEAN COST MANAGEMENT STRATEGIES</b>	<b>TRADITIONAL COST MANAGEMENT STRATEGIES</b>
Rely on flexibility and responsiveness	Rely on economics of scale and scope
Reduce setup and other batch costs by product and process redesign	Spread setup and other batch costs over larger number of units
Invest in divisible 'right sized' capital equipment	Spread indivisible capital costs over larger number of units
Design costs out before production begins (target costing)	Bring costs down as volume increases
Increase the rate of learning by employing a skilled and trained workforce	Make production jobs simple. Outsource to low wage locations.

Source: Grasso, 2021

The information contained in traditional financial reporting is valuable to those who want to know the financial health of a company but may not be sufficient to those needing information to make decisions. Lean accounting reporting also encourages reporting nonfinancial data alongside the financial data. This can present a clearer picture of where to cut costs while at the same time not hurting the company. This presents useful information for those who do not have a strong financial background reading reports or may not be able to identify the relationship between financial and operational performance (Pozesky & Stoner, 2017; Fonou-Dombeu & Nomlala, 2022; Al-Dhubaibi, Sanusi, Hasnan & Yusif, 2023).

*Box Scores*

Lean accounting utilizes a tool known as Box Scores that are weekly reports that contain goals and daily performance. Presenting a report that is simple, current, drilled down, and data classified as nonfinancial is essential to leanness. The Box Score contains goals which are determined internally by meeting with the associated personal. The activities are broken out as operational, capacity, and financial and then subcategorized by activities as illustrated in Figure 4. The reports are readily and clearly understandable information that can be utilized and referenced for decision making, meetings, and information related to the improvement of a company's operations. Note that the three larger categories are broken out in such a matter to suggest a linkage between all the activities. That operational performance may have an impact on the financial. At a minimum, the report can be used as an indicator of problems occurring during a process if goals are not met. It may suggest certain activities that do not affect operational or financial performance. This promotes action and further scrutiny to examine what is hindering the achievement or the goal and may discover areas of improvement. Thus, box scores enable an understanding of the company regarding activity, efficiency, and cost (Woehrie & Abou-Shady, 2010; Gopalakrishnan & Gurumurthy, 2016).

**FIGURE 4  
BOX SCORE FOR WEEKLY PERFORMANCE REPORTING**

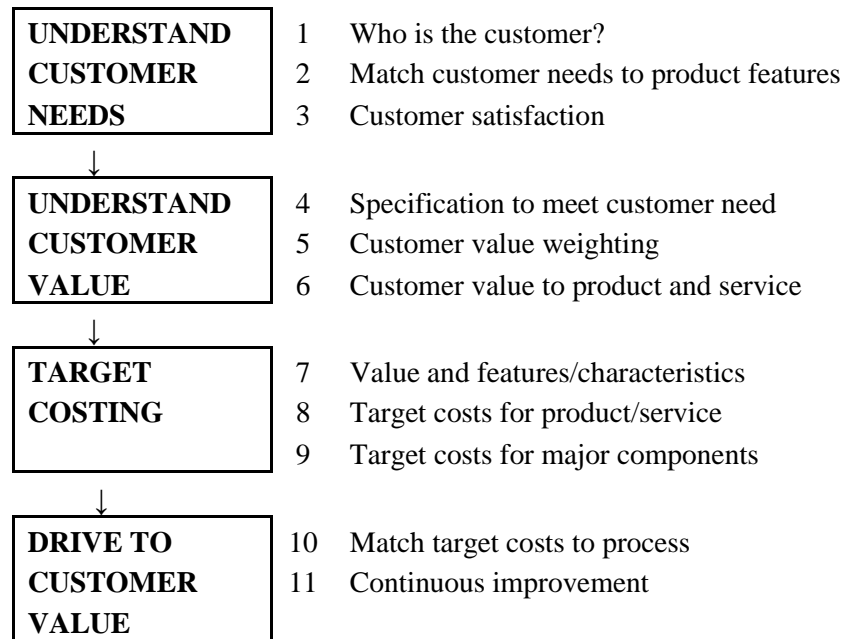
		6/2	6/19	6/16	6/23	6/30	7/7	Goal
<b>OPERATIONAL</b>	Units per Person	15.10	15.63	14.7	15.91	15.90	16.32	20.7
	On-Time-Shipment	100%	100%	100%	100%	100%	100%	100%
	Dock-to-Dock Days	6.00	6.00	6.00	6.00	6.00	5.5	5.5
	First Time Through	80%	80%	81%	85%	85%	87%	82%
	Average Cost	\$343	337	\$362	\$338	\$337	\$325	\$262
<b>CAPACITY</b>	Productive	29%	29%	29%	28%	28%	28%	40%
	Non-Productive	54%	54%	54%	52%	52%	52%	33%
	Available	17%	17%	17%	20%	20%	20%	27%
<b>FINANCIAL</b>	Revenue	\$471	\$485	\$456	\$490	\$488	\$526	\$576
	Material Cost	\$123	\$125	\$129	\$132	\$135	\$137	\$139
	Other Variable Costs	\$49	\$50	\$51	\$54	\$76	\$87	\$51
	Fixed Costs	\$120	\$120	\$118	\$116	\$116	\$116	\$108
	Profit	\$179	\$190	\$158	\$188	\$161	\$186	\$278
	Return on Sales	38%	39%	35%	38%	33%	35%	48%

Source: Authors

*Target Costing*

Target costing is a departure from the traditional analyses of how products and services should be priced. Without any qualitative analysis, price is cost-plus the company's desired profit margin. That pricing model is anti-lean as it implies and assumes the customer is willing to pay the price because the company assumes a specific profit margin. Target costing illustrated in Figure 5 is a simple flow chart that builds on the strengths of lean accounting. The customer needs, and continuous improvement are incorporated into the formulation of the current price.

**FIGURE 5  
TARGET COSTING PROCESS**



Source: Kennedy & Brewer, 2005

This fits into the value stream as waste is targeted, and its value is observed when adding to the company's cost and the consumer's price (Kennedy & Brewer, 2005; Homburg, Hoppe, Schick & Bräul, 2021).

*Value Stream Costing*

Lean accounting utilizes value stream costing (VSC) to construct internal reports and cost reports. Value stream costing follows the idea of lean by encouraging continuous improvement and continuous monitoring of value added activities. A value stream is simply a series of steps to produce value for the customer through a service or product. Costs are organized into streams as they are linked directly to an associated activity or production step. The goal for VSC is to focus on processes that add value and can be controlled. This differs from the once-popular ABC, where costs are organized into pools. The VSC emphasizes resources being used for an identified stream rather than individual products as illustrated in Exhibit 6. That is, all the costs in one process are associated and exclusive of other costs. This enables data to be collected and displayed in a specific manner (Arbos, Lopez & Santos, 2013; Grasso et al., 2022).

The start of the stream is the first action needed to get the product to the consumer. The end of the stream can extend beyond delivery to provide customer support long after the product is delivered, or the service rendered. There are no distinctions between indirect and direct costs, and VSC includes all the costs within a specified time associated with that stream. Figure 6 illustrates that all the costs involved in purchasing, labor, equipment, facility and other are combined in one unit. Value stream strings together cost across various functional departments rather than having the costs segregated by pools. Costs that are excluded from the value stream are reported 'below the line' in a separate section such as inventory changes or corporate overhead. The costs that are excluded are described as costs that cannot be changed and altered by employees. In other words, the employees have no control over the creation of the cost. After creating different value streams, each process is isolated and evaluated. There is still a level of simplicity to the reports as the thought process is linear, and it is easier to track financial and non-financial information within each component of the value stream. VSC becomes a useful tool to document and analyze each component of what is considered valuable (Arbos et al, 2013; Grasso et al., 2022).



**FIGURE 6  
VALUE STREAM COSTING**

		<b>Value Stream 1</b>	<b>Value Stream 2</b>	<b>Value Stream 3</b>	<b>Total Facility</b>
<b>Sales</b>	\$	165,530	89,735	210,750	466,015
Material purchases		32,545	26,540	84,765	143,850
Personnel costs		33,574	15,230	39,785	88,589
Equipment related costs		5,873	14,325	14,526	34,724
Facility costs		9,540	14,575	23,094	47,209
Other costs		2,340	2,030	3,085	7,455
<b>Total costs</b>		81,658	17,035	45,495	144,188
Value Stream Profit	\$	83,998	19,065	48,580	151,643
<b>Value Stream ROS</b>		50.74%	21.25%	23.05%	32.54%
					-14,390
					-21,876
					<b>Facility Profit</b>
	\$				<b>115,377</b>

Source: Authors

*Value Stream Management*

Value Stream Management (VSM) creates reports using the components of the value stream data for monitoring and management of the components of the stream as shown in Figure 7. The value stream bridges the departments and connects them as they are essential to the success of the company's accomplishing its mission (Brosnahan, 2008). VSM focuses on the direct costs when making decisions, not the standard costs, allocations, or variances. A simpler more direct process of linking actions to profit. VSM assigns someone to become an expert of the company's streams and analyze the stream's flow (DeMoura & Bonadio, 2021).

**FIGURE 7  
VALUE STREAM MANAGEMENT REPORT**

		<b>Q4 2018</b>	<b>Q4 2019</b>	<b>Q4 2020</b>
Safety Total	Case incident rate	2.5	2.6	1.9
Quality	Defects per million	15,496	13,674	14,021
Delivery	On-time promise	93.54%	93.28%	94.46%
Cost	Sales per FTE	\$385,490	\$393,572	\$407,169

Source: Brosnahan, 2008

To add more context to VSM, Bonaccorsi, Carmignani and Zammori (2011) suggest there should be arrangements made to more closely locate these departments to mirror the stream. The 'value stream leader,' monitors, coaches, and maintains quality to lower stream cost. The leader also collaborates with accountants, who have more optimal real time reports and manage the cause-and-effect relationship of the business to the consumer. The leader's responsibility includes establishing specific goals such as on-time delivery (Brosnahan, 2008). The underlying idea is that there is oversight to ensure the VSM methodology is not lost by just compiling reports. Rather, there is oversight by individuals functioning as continuous leaders. These activities avoid spending non-value-added time interpreting the reports or holding meetings. Thus, ensuring the information is current, and decisions are based on relevant info (Baggaley & Maskell,

2006). Thus, lean accounting reports benefit companies as they identify non-value added activities, provide real-time data, and are easily understood.

### **Adding Value**

Lean accounting heavily focuses on value to have a lean system in place. In fact, which cannot be stressed enough as value structures the goals, systems, monitoring, and methodology for lean accounting. Lean accounting value is defined by the customer/market. There is an ongoing reporting focus on understanding the consumers' preferences. This can be challenging as the customer's preferences often change at a quick pace. Thus, continuous monitoring of the market and the business clientele is essential. Lean accounting is a methodology that incorporates psychology within its practice and evolves beyond reporting by defining value through the purchasers' behavior (Ortiz, 2012; DeBusk, 2015).

To understand lean accounting value is to understand the relationship between the company and the customer. The customer provides revenue for sustainability and growth of the company. However, many cost management philosophies lack focus on the needs and demands of the consumer when managing costs to increase efficiency. By focusing on value and observing indicators displaying the effects of decision making, there are continuing observations of how the customer reacts to the process change or cost cutbacks. The idea of becoming lean can be summarized as involving the consumer throughout the thought processes of transforming a company to lean accounting as the process forces the firm to determine: What are the value streams? What activates or generates the product or service?

The transformation process requires implementing policies and procedures to support a continuous flow from the conception of a product and/or service to when the product performance is complete. The insistence for continuous improvement in all areas comprise a new lean approach (Bonaccorsi et al., 2011; Trangarajoo & Smith, 2015).

Lean accounting is more than a cost-saving process; it creates time and opportunity for innovation. This is accomplished by the inherent nature of lean accounting with the continued look and oversight of how the company improves where costs can be cut and solve problems such as slow sales growth and inefficiency. The company must scan and respond to market demands. Given the pull system, there is an ongoing observation of how the market reacts. When complaints indicate an untimely service, reports mirror this coupled with the management's attention provides the opportunity for changes to innovative ways to resolve the problem (Pozesky & Stoner, 2017).

With lean accounting, capacity increases as nonvalue added activities are eliminated over time. One of the many restraints of companies not implementing new projects or riskier investments is the lack of capital, capacity, or time. The absence of new ventures leads to stagnant growth. As these non-essential processes get eliminated, there is room on the shop floor for expansion which is an opportunity for a company to explore new markets (Pozesky & Stoner, 2017).

### *Business Opportunities*

Unlike traditional accounting, lean accounting uses current data to make decisions. What sets lean accounting apart is the reports cover what is going on in real-time and include more departments and activities within the company (Herzog & Tonchia, 2014).

Lean accounting is a methodology that transforms a company into becoming more efficient. It accomplishes that feat by cutting costs based on customer data. Lean accounting also highlights non-financial data as a basis for decision-making. Lastly, lean accounting develops a company culture that encourages group effort and continuing support by all personnel.

### **Cons of Lean Accounting**

As promising as lean accounting is, there are flaws in the ideology as well as barriers to becoming lean. There are instances where companies using lean accounting see growth or other positive indicators. The general con of lean accounting is that no well-known standardized implementation method exists. There is also the problem of retraining employees, organizational cultural change, and lean accounting not meeting the company's business challenges (Grasso, 2006; Chiarini, 2012; Darabi, Moradi & Toomari, 2023).

### *Lack of Standardization*

Lean accounting does not have a consistent methodology guide. Despite the promises of monitored growth and longer sustainability, there is no step-by-step process. The concept of implementing lean accounting is the company communicating the lean attributes. That is, being lean requires the company to utilize value stream accounting. There is an emphasis on reporting the state of the company financially and non-financially, and if there is an emphasis on decision making, it is based on the company's value (Bargerstock & Rao, 2013).

With all the promises and attractiveness of lean accounting, there is a lack of how to truly become lean. Given the methodology and seeing it as a plan of action, there is no consensus. At best it is seen as a collection of common ideas and agreements, without specificity or context. There are too many ways to focus on value for the customer. There are extensive ways a company can install processes to have oversight and improve on decisions. There are no criteria to determine if having specific types of reports is essential. As there is too much available non-financial data to efficiently gather into reports. Data can be measured, but there is no guidance on what is considered essential to capture for analysis. Companies that make a commitment to becoming lean are without any guidance on what is right. This fault, combined with the fact that there are few known cases of lean accounting success, leaves a lack of enthusiasm (Bhasin & Burcher, 2005).

### *Not a 'Cure All' Solution*

Many challenges are pitted against companies, such as technological changes, faster changes in consumer preferences, and competition. However, lean accounting is not to be mistaken as the answer to transform a company to the next industry leader or the only answer to success in today's business environment.

Lean accounting's methodology of focusing on value, staff involvement, and consideration of non-financial data offers a lot when compared to a more traditional business' strategic decision-making process. However, until there are more studies and success stories, there is no definitive proof that lean accounting increases company growth and profitability. Lean accounting is still evolving as a viable technique to improve companies becoming lean is a work in progress (Thompson & Merwe, 2007; Darabi et al., 2023).

Value stream also has a limitation of being internally focused, as there are no "lean tools" in combating external threats. The customer focus forces companies to look at themselves hard to determine the impact on the consumer and company revenue.

## **CONCLUSION**

Lean accounting is a change to traditional accounting methods as it shifts the company's perspective to become efficient and effective in the marketplace. Lean accounting reduces costs by restructuring internal processes to create value for the customer. Value is defined by customer satisfaction and market demand. This demand drives the company's decisions. And there is a unified culture when problems arise as the company continues to strive to become lean and efficient. However, implementing lean accounting is a gamble as lean accounting requires a company's commitment of finance, time, and staff.

Limitations to lean accounting include no overall clear-cut processes for a company to become lean. Companies must create their own values. They are also responsible for determining via trial and error whether certain data is essential. Future research should explore ways and means to implement lean accounting including the appropriate processes, reports, measurements, indicators, and other criteria to ascertain if a company is or is becoming lean. With standardization and examples, lean accounting implementation can gain creditability.

This discussion provides a general overview of lean accounting to help understand how management accounting information can be used to maximize the benefits of lean manufacturing. Future research should investigate the role and activities of companies successfully implementing lean accounting. Hopefully, future researchers and academics can use this discussion about lean accounting as a starting point to define their research agenda.

## REFERENCES

- Ahrens, T., & Chapman, C.S. (2007). Management accounting as practice. *Accounting, Organizations, and Society*, 32(102), 1–27.
- Al-Dhubaibi, A.A.S., Sanusi, Z.M., Hasnan, S., & Yusuf, S.N.S. (2023). The association between management accounting advancement and corporate performance. *Access to Success*, 24(195), 272–279.
- Arbos, L.C., Lopez, P.R., & Santos, J.F. (2013). Lean manufacturing: Costing the value stream. *Industrial Management & Data Systems*, 113(5), 647–668.
- Arora, V., & Soral, G. (2017). Conceptual issues in lean accounting: A Review. *IUP Journal of Accounting Research & Audit Practice*, 16(3), 54–63.
- Baggaley, B.L., & Maskell, B.H. (2006). Lean accounting: What's it all about? *Target Magazine*, 1, 35–43.
- Baggaley, B.L., & Maskell, B.H. (2003). Value stream management for lean companies. *Journal of Cost Management*, 17(3), 24–30.
- Bahnub, B. (2010). *Activity-Based Management for Financial Institutions: Driving Bottom-Line Results*. Hoboken, NJ: John Wiley & Sons.
- Bargerstock, A.S., & Rao, M.H.S. (2013). Do lean implementation initiatives have adequate accounting support?: The debate of duality. *IMA*, 14(4), 12–21.
- Bhasin, S., & Burcher, P. (2005). Lean viewed as a philosophy. *Journal of Manufacturing Technology Management*, 17(1), 56–72.
- Bonaccorsi, A., Carmignani, G., & Zammori, F. (2011). Service Value Stream Management (SVSM): Developing lean thinking in the service industry. *Journal of Service Science and Management*, 4, 428–439.
- Brosnahan, J.P. (2008, July). Unleash the power of lean accounting. *Journal of Accountancy*, pp. 1–7.
- Carnes, K., & Hedin, S. (2005). Accounting for lean manufacturing: Another missed opportunity. *Management Accounting*, 7(1), 28–35.
- Chiarini, A. (2012). Lean production, mistakes, and limitations of accounting systems inside the SME sector. *Journal of Manufacturing Technology Management*, 23(5), 681–700.
- Chongruksut, W. (2009). Organizational culture and the use of management accounting. *Ramkhamhaeng University International Journal*, 3(1), 113–126.
- Cooper, R., & Kaplan, R.S. (1988, September–October). Measure costs right: Make the right decisions. *Harvard Business Review*, pp. 96–103.
- Darabi, R., Moradi, M., & Toomari, U. (2023). Barriers to implementation of lean accounting in manufacturing. *International Journal of Engineering Economics, Social Policy and Government*, 1(2), 45–55.
- DeBusk, G. (2015). Use lean accounting to add value to the organization. *The Journal of Corporate Accounting & Finance*, 26(4), 29–35.
- DeMoura, D.A., & Bonadio, V.C. (2021). Service value stream management. *Independent Journal of Management & Production*, 12(4), 832–855.
- Frick, N., & Metternich, J. (2022). The digital value stream twin. *Systems*, 10(4), 102–113.
- Gopalakrishnan, N., & Gurumurthy, A. (2016). Leanness assessment: A literature review. *International Journal of Operations & Production Management*, 36(10), 1115–1160.
- Grasso, L. (2006, March–April). Barriers to lean accounting. *Cost Management*, pp. 6–19.
- Grasso, L., & Fearon, D. (2015). Moving beyond budget: Avoiding dysfunction and waste. *Cost Management*, 29(1), 30–39.
- Grasso, L.P. (2021). Materials for teaching lean accounting. *Journal of Higher Education Theory and Practice*, 21(12), 17–30.
- Grasso, L.P., Kristensen, T.B., & Nielsen, H. (2022). ABC and value stream costing in tandem. *Strategic Finances*, 103(9), 34–41.

- Haskin, D. (2010). Teaching special decisions in a lean accounting environment. *American Journal of Business Education*, 3(6), 91–96.
- Haskin, D.L., & Haskin, T.E. (2014). Evaluating service departments as value streams. *Journal of Business & Economics Research*, 12(2), 115–119.
- Herzog, N.V., & Tonchia, S. (2014). An instrument for measuring the degree of lean implementation in manufacturing. *Journal of Mechanical Engineering*, 60(12), 797–803.
- Homburg, C., Hoppe, A., Schick, R., & Bräul, A. (2021). Accounting for preference dependency in target costing – A note. *Review of Quantitative Finance and Accounting*, 57(3), 845–858.
- Johnson, H.T. (2002). A former management accountant reflects on his journey through the world of cost management. *Portland State University Accounting History*, 7(1), 9–21.
- Kaplan, R.S. (1984). The evolution of management accounting. *The Accounting Review*, 59(3), 390–417.
- Kaplan, R.S., & Burns, W.J. (1987). *Accounting and Management: Field Study Perspectives*. Boston, MA: Harvard Business School Press.
- Kaplan, R.S., & Johnson, H.T. (1987). *Relevance Lost: The Rise and Fall of Management Accounting*. Boston, MA: Harvard Business School Press.
- Lima, B.F., Neto, J.V., Santos, R.S., & Calado, R.G.G. (2023). A socio-technical framework for lean project management implementation towards sustainability. *Sustainability*, 15(3), 1756–1801.
- Luo, J., & Brozovsky, J. (2013). Lean accounting and information adjustment in efficient industries. *Academy of Accounting and Financial Studies Journal*, 17(4), 1–10.
- Maskell, B.H. (2000). Lean accounting for lean manufacturing. *Manufacturing Engineering*, 125, 46–53.
- Maskell, B.H., & Baggaley, B.L. (2004). *Practical Lean Accounting: A Proven System for Measuring and Managing the Lean Enterprise*. New York, NY: Productivity Press.
- Maskell, B.H., Baggaley, B.L., & Grasso, L. (2012). *Practical Lean Accounting: A Proven System for Measuring and Managing the Lean Enterprise* (2<sup>nd</sup> Ed.). Cherry Hill, NJ: CRC Press.
- Nordin, N.B., Deros, B.M., & Wahab, D.A. (2010). A survey of lean manufacturing implementation in Malaysian automotive industry. *International Journal of Innovation, Management and Technology*, 1, 374–380.
- Ortiz, C.A. (2012). *The Psychology of Lean Improvements: Why Organizations Must Overcome Resistance and Change the Culture*. Boca Raton, FL: CRD Press. Taylor & Francis Group Ltd.
- Pozesky, R.E., & Stoner, J.S. (2017, August). *Lean Accounting Brings Focus and Direction to Company Performance*. Philadelphia, PA: Pennsylvania Institute of Certified Public Accountants.
- Shah, R., & Ward, P.T. (2003). Lean manufacturing: Context, practice bundles and performance. *Journal of Operations Management*, 21, 129–149.
- Shah, R., & Ward, P.T. (2007). Defining and developing measures of lean production. *Journal of Operations Management*, 25(4), 785–805.
- Thangarajoo, V., & Smith, A. (2015). Lean thinking: An overview. *Industrial Engineering & Management*, 4(2), 159–164.
- Thomson, J., & Merwe, A.V.D. (2007). The lowdown on lean accounting. *Strategic Finance*, 88, 26–33.
- Wang, C. (2021). Using enterprise architecture to integrate lean manufacturing, digitalization, and sustainability. *Sustainability*, 13(9), 4851–4891.
- Waweru, N.M. (2010). The origin and evolution of management accounting: A review of the theoretical framework. *Problems and Perspectives in Management*, 8(3), 165–182.
- Woehrie, S.L., & Abou-Shady, L. (2010). Using dynamic value stream mapping and lean accounting box scores to support lean implementation. *American Journal of Business Education*, 3(8), 67–75.
- Womack, J., & Jones, D. (2003). *Lean Thinking: Banish Waste and Create Wealth for Your Corporation*. New York: Free Press.
- Zawawi, N.H.M., & Hoque, Z. (2010). Research in management accounting innovations. *Qualitative Research in Accounting and Management*, 7(4), 505–568.